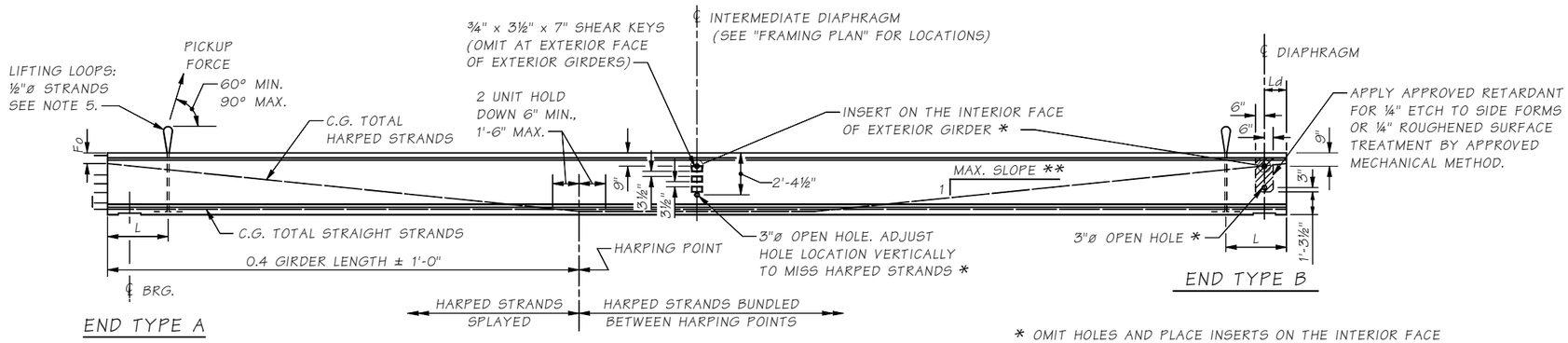


GIRDER ELEVATION

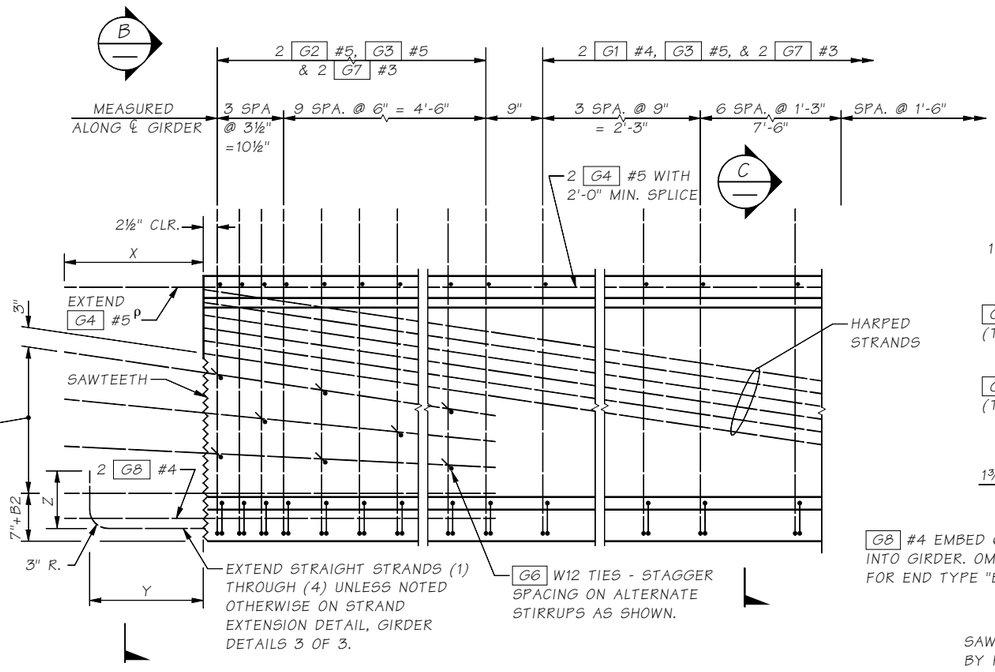
* OMIT HOLES AND PLACE INSERTS ON THE INTERIOR FACE OF EXTERIOR GIRDERS. PLACE HOLES AND INSERTS PARALLEL TO SKEW. INSERTS SHALL BE 1"ø BURKE HI-TENSILE, LANCASTER MALLEABLE, DAYTON-SUPERIOR F-62 FLARED THIN SLAB (1" x 4⅝") FERRULE OR APPROVED EQUAL. (TYP.)

** MAXIMUM SLOPE FOR STRANDS
6 : 1 FOR EACH ½"ø STRAND OR
8 : 1 FOR EACH 0.6"ø STRAND

NOTES

1. PLAN LENGTH SHALL BE INCREASED AS NECESSARY TO COMPENSATE FOR SHORTENING DUE TO PRESTRESS AND SHRINKAGE.
2. ALL PRETENSIONED STRANDS SHALL BE [½"ø OR 0.6"ø] LOW RELAXATION STRANDS (AASHTO M203 GRADE 270.)
3. FOR END TYPES A, C AND D, CUT ALL STRANDS FLUSH WITH THE GIRDER ENDS AND PAINT WITH AN APPROVED EPOXY RESIN, EXCEPT FOR EXTENDED STRANDS AS SHOWN. FOR END TYPE B CUT ALL STRANDS 1" BELOW CONCRETE SURFACE AND GROUT WITH AN APPROVED EPOXY GROUT.
4. THE TOP SURFACE OF THE GIRDER FLANGE SHALL BE ROUGHENED IN ACCORDANCE WITH SECTION 6-02.3(25)H OF THE STANDARD SPECIFICATIONS.
5. LIFTING EMBEDMENTS SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 6-02.3(25)L OF THE STANDARD SPECIFICATIONS.
6. CAUTION SHALL BE EXERCISED IN HANDLING AND PLACING GIRDERS. ALL GIRDERS SHALL BE CHECKED BY THE CONTRACTOR TO ENSURE THAT THEY ARE BRACED ADEQUATELY TO PREVENT TIPPING AND TO CONTROL LATERAL BENDING DURING SHIPPING. ONCE ERECTED, ALL GIRDERS SHALL BE BRACED LATERALLY TO PREVENT TIPPING UNTIL THE DIAPHRAGMS ARE CAST AND CURED.
7. FORMS FOR BEARING PAD RECESSES SHALL BE CONSTRUCTED AND FASTENED IN SUCH A MANNER AS TO NOT CAUSE DAMAGE TO THE GIRDER DURING THE STRAND RELEASE OPERATION.

INTERMEDIATE DIAPHRAGM:
1/2 point of span for span lengths 40'-0" to 80'-0".
No intermediate diaphragm for span lengths 40'-0" or less.



TYPICAL END ELEVATION

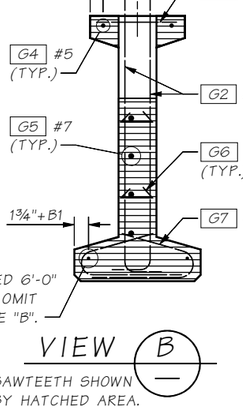
END TYPE C SHOWN, OTHER END TYPES SIMILAR.

ρ FIELD BENDING REQUIRED TO OBTAIN 1½" CONCRETE COVER AT PAVEMENT SEAT.

(stirrup spacing shall be determined by the designer)

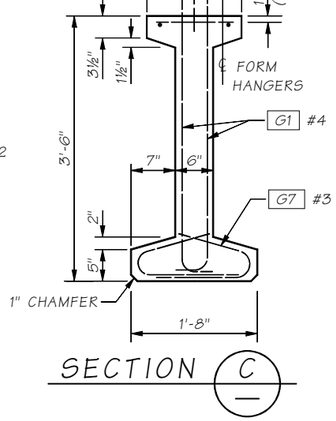
FOR END TYPE "C"

ENDS AHEAD ON STATION
G5 BARS LEFT OF ℄
B1 = 0" (G4 , G8)
B2 = 0" (G5)
ENDS BACK ON STATION
G5 BARS RIGHT OF ℄
B1 = 1½"(G4 , G8)
B2 = 3" (G5)



VIEW B

SAWTEETH SHOWN BY HATCHED AREA.



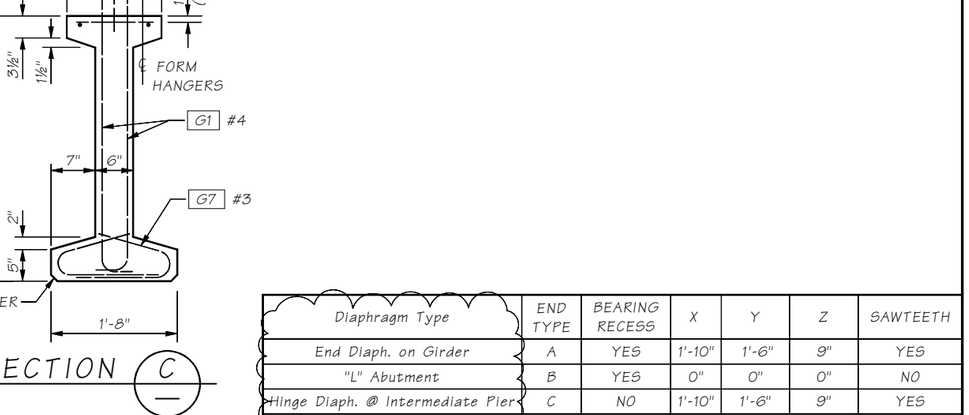
SECTION C

Diaphragm Type	END TYPE	BEARING RECESS	X	Y	Z	SAWTEETH
End Diaph. on Girder	A	YES	1'-10"	1'-6"	9"	YES
"L" Abutment	B	YES	0"	0"	0"	NO
Hinge Diaph. @ Intermediate Pier	C	NO	1'-10"	1'-6"	9"	YES
Fixed Diaph. @ Intermediate Pier	D	NO	1'-10"	ALT. 1 OR ALT. 2 STRAND EXTENSION		YES

MARK	LOCATION	SIZE	
G1	GIRDER STIRRUPS	4	
G2	GIRDER END STIRRUPS	5	
G3	GIRDER TOP FLANGE	5	STR.
G4	GIRDER LONGIT. FULL LENGTH	5	STR.
G5	GIRDER END LONGIT.	7	STR.
G6	GIRDER END TIES	W12 δ	
G7β	GIRDER BOT. FLANGE TIES	3	
G8	GIRDER END LONGIT.	4	STR.
G9β	GIRDER BOT. FLANGE TIES	3	
G10β	GIRDER BOT. FLANGE TIES	3	

BENDING DIAGRAM (ALL DIMENSIONS ARE OUT TO OUT)

NOTE: FOR DIMENSION "A", SEE "GIRDER SCHEDULE"



α - VARIES FOR SKEWED ENDS.
δ - #3 OR #4 MAY BE SUBSTITUTED. FIELD BENDING IS OPTIONAL.
β - PAIRS OF G7 BARS, OR G9 AND G10 BARS, MAY BE USED INTERCHANGEABLY AS BOTTOM FLANGE TIES.
γ - SHALL BE CHECKED FOR EFFECT OF VERTICAL CURVE.

Bridge Design Engr.	M:\STANDARDS\Girders\I-Girders\W42G\W42G1.man							
Supervisor								
Designed By								
Checked By								
Detailed By								
Bridge Projects Engr.								
Prelim. Plan By								
Architect/Specialist	DATE	REVISION	BY	APP'D				

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER				

BRIDGE AND STRUCTURES OFFICE

Washington State Department of Transportation

STANDARD PRESTRESSED CONCRETE GIRDERS

W42G GIRDER DETAILS 1 OF 2

BRIDGE SHEET NO. | SHEET | OF | SHEETS

SR | JOB NO. | SHEET

5.6-A3-1

Tue Apr 29 13:11:29 2008